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Comparison of balance functions of 13-15 age group boys who make sports or not and inborn visually impaired

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Abstract

The aim of this research is to explore visually impaired children's balance characteristics and determine whether a difference occurs in the static and dynamic balance of visually impaired children who do not make sport. The example taken to conduct and swimming team between the ages 13-15 who participate in tournaments, 10 male students who engage in sport comprised the test group and 10 youths who did not sport were the control group. To retrieve information regarding the static and dynamic function of visually impaired youths, the flamingo balance test one foot balance test balance board test, jumping test, balance maintaining test and dynamic balance test were applied.3 static 3 dynamic test batteries were used during the chosen test.

In the research that was conducted ,whereas little difference was noted in the flamingo balance test , one foot balance test, balance board test, jumping test and dynamic balance test($p<0.05$).The result were obtained using the SPSS 12.0 statistic packet Program.

Keywords: Impaired, static, dynamic, balance

1. Introduction

It has been expected that among the healthy and impaired people, the differences are observed not only in physical structure and motor behaviours but also in their mental structure and social intercourse because while healthy people are stable, there is a great trauma in impaired people.

Man who is under effect of stimulant that comes from both inner and environment are accepted as "bio psycho-social" individual (Koptagel, 1991).And as their numbers worked with all these factors in harmony, balance are protected (Songar, 1991).This protection can be possible with necessarily arose motive's reaching to target (Baymur, 1993).If reaching to target is prevented, person tries to make compensation with various ways called "defence mechanism". It is usual after reaching to pathological dimension that all people in various situations and

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times on both healthy and impaired people at times. Defence mechanism and its level of usage will change according to his culture, social status, education level, family and environment structure and state of mind.
If we take person's integrity into consideration according to theory of "Body and Mental Health", It is quite normal that changes in the parts of integrity reflecting on other parts ,consequently; changes in body cause to changes on mental state of person(Kosel,1997).

According to this theory that is based on in accordance with body, mental and social health type, it is inevitable that bodily and social changes have impact on social life. Especially, Psychological development has importance on person's adapting to society and for individuals that completed their psychological development; it is easy to keep up with society's requirements. People, who have defects in terms of bodily, mental and spiritual, mostly use this kind of force mechanism. It is good for people on condition that they use defence mechanism moderately because these mechanisms protect people when they face trouble that comes out from obstacle. A person who has not a leg or loses his sense of visual or hearing is face to face with handicap. He should take all movements into consideration thinking his defects and arrange it. So, this will affect his mental state negatively. Impaired person will start to feel sorrow as they see their reflection of defects in social and physical arena. Besides, as a result of heavy body defects, there will arise complete prevented state so It will give rise to abnormal behaviours and inferiority complex to satisfy this (Baymur, 1993).Imminent mental dissatisfaction will cause to tension and later prepare the grounds of depression. Initially, a person who stands as is he lacks withdrawn social side will be seen depressive symptoms in time.

Impaired people's entering to society is important so that their social life and mental world do not get damage. For this reason, their relations with their parents are important.
It is a fact that visually impaired people have a special position in society in comparison to other impaired diseases. This special position should not be based on the proportion of impaired in society but to difficulties of psychological development and education that belongs to impaired groups (Günaydı, 1993).
Children learn almost with their visual seen and hearing. In case these senses get damage, namely lose sight or hearing function affect the learning (İnce, 1993).

Children who are affected from visual insufficiency have a slower development process in comparison to normal children. Their major problems are disorder of posture, muscle development, body balance insufficiency and walking abilities. Apart from normal children, the reason why these frequently occur on children who have disorders are based on insufficient movement practice, tendency to being static and in visual application(Adelson;Fraiberg,1999).

1. The Research Method

The research was completed by using universe, examples, data collection and duration, analysis of datum SPSS and 12.0 statistic packet. Researches were especially conducted on 13-15 age group boys who make sports and inborn visually impaired children. It has been tried to focus on the datum of visually impaired children determining static and dynamic balance function.

2. Findings

The results gained from the analysis of datum were presented as tables and commented in the light of datum in the tables.

Table 1, Distribution of experiment group's age, length and body weight.

Experiment group	N	X	Sd
Age(year)	10	14.20	0.78
Length(cm)	10	160.00	9,69
Body(kg)	10	51.70	13,42

Age average of experiment group is 14.20(year) ±0.78 (year) length average is 160.00(cm) ±9.69 (cm), body weight is 51.70(kg) ±13.42 (kg)

Table 2, Distributions of control group's age, length, body weight

Experiment group	N	X	Sd
Age(year)	10	13.90	0.87
Length(cm)	10	153.70	9.42
Body(kg)	10	46.90	9.57

Age average of children in control group is 13.90(year) ±0.87 (year), length averages is153.70 (cm) ±9.42 (cm), body weight is 46.90(kg) ±9.57 (kg). There is no significant difference found between the two groups on the base of age, length and weight.

Table 3, statistical analysis of experiment group and control group on the flamingo balance (error) tests

	n	x	sd	t
Experiment group	10	10,80	6,26	,127
Control group	10	10,40	7,22	

When we compare the two groups, there is no significant difference found between the two groups (P>00, 5).

Table 4, statistical analysis of experiment group and control group on the one foot balance test

	n	x	sd	t
Experiment group	10	254,00	138,47	1,89
Control group	10	142,00	126,29	

There is no significant difference found between experiment and control groups on one foot balance test (P>0, 05)

Table 5, statistical analysis of experiment group and control group on balance board test

	n	x	sd	t
Experiment group	10	4,20	3,08	2,094
Control group	10	2,10	0,73	

There is no significant difference found between experiment and control groups on balance board test (P>0, 05).

Table 6, statistical analysis of experiment and control group on jumping test (error)

	n	x	sd	t
Experiment group	10	0,70	0,48	0,88
Control group	10	0,50	0,52	

There is no significant difference found between experiment and control groups on jumping test (P>0, 05)

Table 7, statistical analysis of experiment and control group on balance maintaining test

	n	x	sd	t
Experiment group	10	46,00	31,69	3,051
Control group	10	15,00	5,27	

(P<0, 05)

There is no significant difference found between experiment and control groups on balance maintaining test

Table 8, statistical analysis of experiment and control group on dynamic balance (error) tests

	n	x	sd	t
Experiment group	10	0,70	0,48	1,34
Control group	10	0,40	0,51	

There is no significant difference found between experiment and control groups on dynamic test (P>0, 05)

3. Conclusions and Suggestions

As a result, when the static and dynamic functions of inborn visually impaired boys between the age of 13-15 who make sports and who do not make sports is evaluated, no significant difference in terms of length and weight is found in this research. However, in the balance maintaining test, a significant difference among the test and control groups has been come out.

In his research, Kaya, M found a significant difference in terms of length values.

In a similar age group research, Doğan, AA and Yılmaz did not find any significant difference in terms of length values.

In this research, any significant difference in terms of weight measurement has not been found. In Kaya, M's research, a significant difference in terms of weight measurement has been found.

In the research of Doğan, AA and Yılmaz, İ, no significant difference among the groups have been found. It was thought that the reason of differences in the groups was caused by the lack of sport activities, nutrition, posture and genetic problems.

In the research of Kaya, M, no significant difference was found among the groups in the flamingo balance test.

As the result of analysis related with the similar research of Akın H, there is not any significant difference. However, in the "one foot balance test", any significant difference was not been found among the groups. No difference in the statistical analysis of Kaya M has been found. Bohannan, R, W approved that the balance can change according to muscle and skeleton system, age and visual stimulators and integrity in components.

As a result of the flamingo balance test, any difference among the group has not been found. It is believed that it is because of zero part evaluation. There is no significant difference between balance board test and Kaya's test which are applied to two groups.

In the balance maintaining tests, a significant difference among two groups has been found. However, Kaya, M did not find any significant difference in the result of same test.

There was not any significant difference in this research as a result of jumping tests. In the result of Kaya, M's same test, a significant difference was found.

As a result of dynamic balance tests, no significance has been found. In the research of Kaya, M, no different result has been found. So, It has been thought that this is because the dynamic balance is easy applicable in terms of the application.

Suggestions

Even if visually impaired children showed a growth following a same development stage owing to being affected by lack of visualise, development is slower than normal children. As a result of researches, visually impaired children have more disorders such as posture, muscle development, body imbalanced, walking ability in comparison to healthy children. As it stems from tendency of insufficient movement practice and being static, it should be directed to more conscious sport activities and especially body balance movement.

Institutions for visually impaired people should urgently work on to develop their physical and mental disorders.

Authorized ministries should carry out social activity programs that visually impaired children can get benefit.

According to census carried out in TRNC, visually impaired children should be determined and get benefit from private and joined education.

Instructors should be trained with private education equipment.

Such researches should be carried out worldwide and scientific analysis should be evaluated.

More equipments and facilities, that such disabled people can benefit, should be put into service.

Balance maintaining test should hasten the scientific studies because it is very important for visually impaired people.

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